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DEPARTMENT OF THE ENVIRONMENT
REPORT TO
CABINET COMMITTEE ON RESOURCES AND ENVIRONMENT

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DEPARTMENT OF THE ENVIRONMENT
REPORT TO
CABINET COMMITTEE ON RESOURCES AND ENVIRONMENT

Report To

THE NATURAL RESOURCES DEVELOPMENT AND ENVIRONMENT CABINET COMMITTEE

Hon. Dr. H. M. Horner, Chairman
Deputy Premier and Minister of Agriculture

Hon. W. J. Yurko, Minister of the Environment

Hon. W. D. Dickie, Minister of Mines and Minerals

Hon. F. H. Peacock, Minister of Industry

Hon. Dr. A. A. Warrack, Minister of Lands and Forests

November 8, 1971

The Department of the Environment
hereinafter called the Department
and
The Energy Resources Conservation Board
hereinafter called the Board

In the matter of

(1) Areas of duplicated responsibility

(2) Application of approval procedures

(3) Revisions to legislation

submitted by

The Alberta Department of the Environment

Dr. E. E. Ballantyne, Deputy Minister

ABSTRACT

This abstract will deal only with the principles involved which in our opinion are pertinent to this hearing. The Alberta Legislature, meeting in 1971, passed The Department of the Environment Act, The Clean Water Act and The Clean Air Act on the understanding that the Department of the Environment was to establish the standards and grant the approvals concerning any plant, structure or thing which will be a source of water or air pollution. It was also understood that the Department would be charged with the responsiblity for the co-ordination of the policies, programs and services and administrative procedures, of the departments of the Government and of government agencies in matters pertaining to the environment. Furthermore, it was understood that the government role, through the Department, was to emphasize good environmental management, with specific reference to pollution prevention in the total environment. We respectfully submit that "energy" is only one part of the "total".

Therefore, based on this concept and the understanding of the Legislature, the Department of the Environment was organized and staffed accordingly, with the "judiciary" (Division of Standards and Approval) and the "Police Force" (Division of Pollution Control) being separated. The Standards and Approval Division is to be multidiscipline with a capability, before granting approvals, to give full attention to the possible end point effects on the flora, wildlife (including fish), domestic animals and man. The Division of Pollution Control is the enforcement unit and will include the laboratory as a science unit to ascertain the facts. The "police" or enforcement will be done by the Department in some cases but in many cases it will be delegated to agencies or departments who have trained staff in the field in an effort to avoid duplication, eg. the Energy Resources Conservation Board, Department of

Lands and Forests, Counties, etc. Irrespective of the delegation of the enforcement aspect, the Department of the Environment shall retain the right to investigate, check or monitor at any point in the chain involved for evaluation purposes. This is to ensure proper pollution prevention or control, conservation, management and utilization of natural resources in the total without undue adverse effects on land, water, air, plant life, wildlife, domestic animals and man.

Therefore, in summary, the Department is of the opinion that it is in the public interest to centralize the setting of standards and the approval procedure within its Division of Standards and Approval as the pollution effect on the total environment must be dominant in accordance with the understanding of the Alberta Legislature. Concurrently with this will be a responsibility in industry and others concerned to plan well in advance. The purpose will be to enable a full analysis of the effects on the environment but at the same time to permit optimum development of the Provinces natural resources in keeping with environmental protection and management criteria.

In conclusion, the working relationship between the Government of Canada and the Government of Alberta, because of The Canada Water Act, The Clean Air Act and The Canada Fisheries Act, etc., provide for working agreements, and/or delegation of the administration direct between the Federal Department of the Environment and the Alberta Department of the Environment when dealing with pollution matters. The recent Federal minimum effluent standards for the pulp and paper industry will be followed by minimum standards for pollution control of chlor-alkali plants, refineries, etc. including the electrical generating industry. As Federal-Provincial negotiations and agreements are between Ministers of line Departments, it is respectfully submitted that the Minister of the Alberta Department of the

Environment will have to speak for the energy generating industry in Alberta on pollution matters when dealing with the Government of Canada.

Also, every indication points to more Federal intrusion in the future into water management and quality control matters in the provinces. These matters relating to standards and approvals and administration concerning pollution can only be resolved by negotiations at the Ministerial level. Internally, we have to have our Alberta house in order for proper action.

Therefore, the comments in this conclusion further confirm the principles outlined above in the abstract.

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A. INTRODUCTION

The 1971 session of the Legislative Assembly of Alberta passed three extremely comprehensive Acts in order to develop a balance between resource development and environmental matters. The Department of the Environment Act not only established a department of the public service of the Province, but also it granted specific powers and duties to the Minister on environmental matters. Environmental matters were defined as those legal or economic factors and any operations or activities which directly or indirectly affected the quality or quantity of any natural resource (excluding minerals) in the various phases of resource utilization with special emphasis on the prevention of degradation or pollution of those resources.

Specifically, the Minister was charged with the co-ordination of policies, programs, services and administrative procedures of all Government departments and agencies in matters pertaining to the environment. For this purpose, a Natural Resources Co-ordinating Council of eight deputy ministers and the Chairman of the Energy Resources Conservation Board was established, in addition to the existing seventeen member Conservation and Utilization Committee. This was done to ensure that there was effective co-ordination at the upper administrative and technical levels of Government.

The Clean Air and The Clean Water Acts both gave the Minister the power and responsibility of setting maximum permissible levels of pollutants and the approval of all plans and specifications to ensure that these standards were not exceeded, as well as the setting of emission control standards and the halting of any operation or activity exceeding these standards. In addition, the Acts provided for the delegation of certain powers where approved by the Lieutenant Governor in Council.

The same Legislative Assembly also passed The Energy Resources Conservation Act and The Hydro and Electric Energy Act. Their purpose, as clearly demonstrated by Figure I, which is a reproduction of the chart tabled in the Assembly at the time, was to provide for the management of energy matters in balance with other environmental matters.

In respect of the legislative intent, the Departments position is that environmental matters are the sum total of many components, and in this instance the energy matter is but one component, although important both socially and economically. This holistic approach is the essence of nature itself; to ignore it or deny it serves no man.

The Department therefore submits that its strategy for the discharge of these legislative responsibilities (including The Water Resources Act, The Groundwater Control Act, The Agricultural Chemicals Act, The Alberta Environment Research Trust Act and The Beverage Containers Act) to the people of Alberta, is to:

(1) execute environmental policy and administer that policy in those areas of responsibility where it has a direct obligation to the public;

(2) execute environmental policy and delegate the administration of that policy in whole or in part where its responsibility is of a less direct nature and/or where other departments or agencies of Government either because of unique technical expertise or administrative capability or both, can better service the public within the framework of the policy as determined by periodic monitoring and evaluation;

(3) co-ordinate the execution of environmental policy with those other departments or agencies of Government for their subsequent administration to ensure that the integrity of environmental matters are maintained throughout Government.

AREAS OF GOVERNMENT RESPONSIBILITY RELATING TO ENERGY RESOURCES

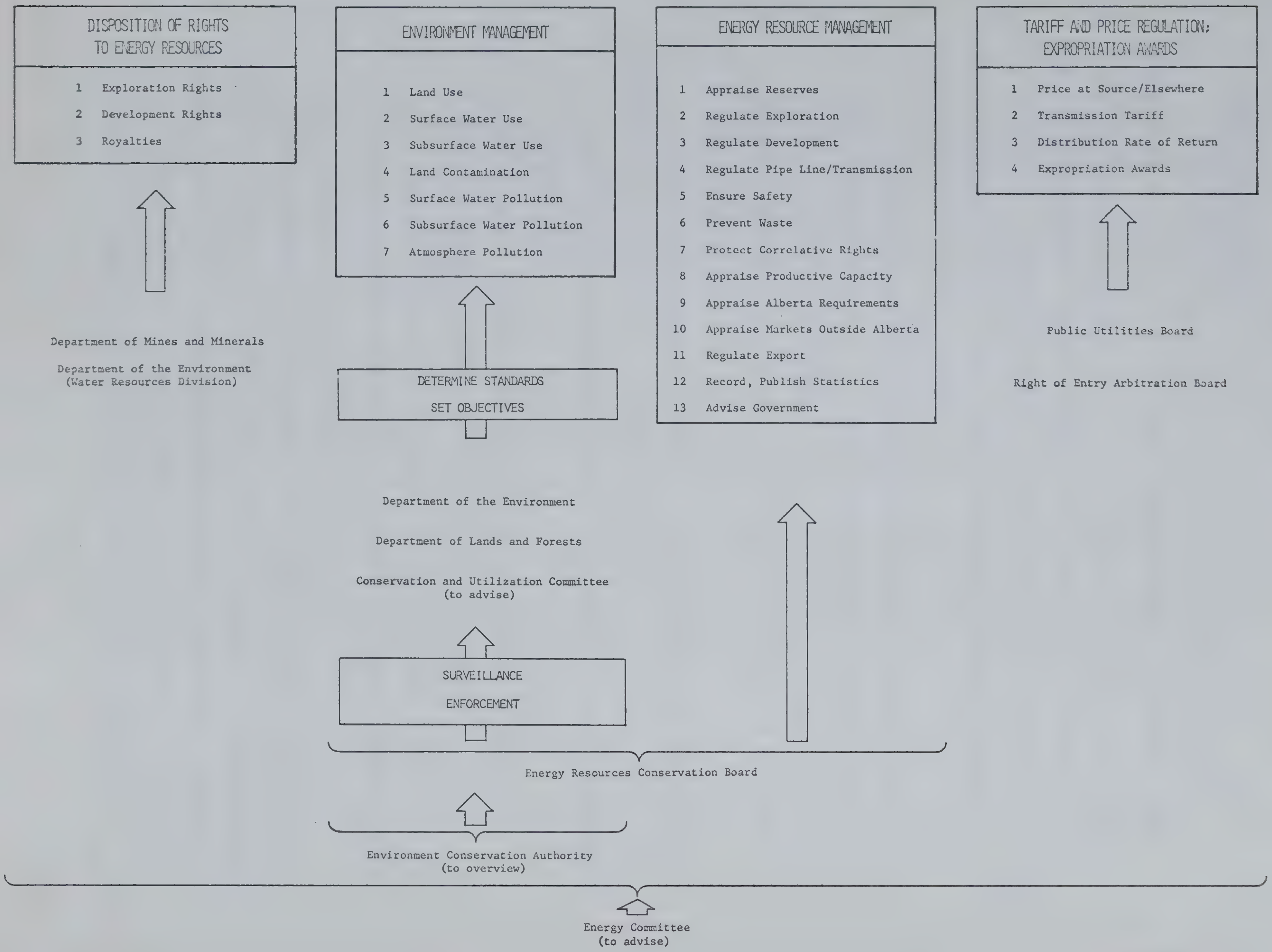

DISPOSITION OF RIGHTS TO ENERGY RESOURCES
1 Exploration Rights
2 Development Rights
3 Royalties
Department of Mines and Minerals
Department of the Environment (Water Resources Division)
ENVIRONMENT MANAGEMENT
1 Land Use
2 Surface Water Use
3 Subsurface Water Use
4 Land Contamination
5 Surface Water Pollution
6 Subsurface Water Pollution
7 Atmosphere Pollution
DETERMINE STANDARDS
SET OBJECTIVES
Department of the Environment
Department of Lands and Forests
Conservation and Utilization Committee (to advise)
SURVEILLANCE
ENFORCEMENT
ENERGY RESOURCE MANAGEMENT
1 Appraise Reserves
2 Regulate Exploration
3 Regulate Development
4 Regulate Pipe Line/Transmission
5 Ensure Safety
6 Prevent Waste
7 Protect Correlative Rights
8 Appraise Productive Capacity
9 Appraise Alberta Requirements
10 Appraise Markets Outside Alberta
11 Regulate Export
12 Record, Publish Statistics
13 Advise Government
Energy Resources Conservation Board
Environment Conservation Authority (to overview)
TARIFF AND PRICE REGULATION; EXPROPRIATION AWARDS
1 Price at Source/Elsewhere
2 Transmission Tariff
3 Distribution Rate of Return
4 Expropriation Awards
Public Utilities Board
Right of Entry Arbitration Board
Energy Committee (to advise)

FIGURE 1

B. SITUATION STATEMENT

At the present time certain specific sections of The Oil and Gas Conservation Act, The Energy Resources Conservation Act, and The Hydro and Electric Energy Act duplicate the intent, with specific reference to energy matters and those environmental matters specified in The Department of The Environment Act, The Clean Air Act, The Clean Water Act and The Water Resources Act (see Appendix "A") as they relate to the general subject of pollution control and water use and diversion.

It is the Departments hope that this hearing will avoid the duplication of intent which may also occur in the proposed new Coal Conservation Act and the proposed new Surface Reclamation Act, especially on the general subject of environmental degradation in addition to those pollution control and water use and diversion aspects.

These confusing features inherent in the legislation and subsequently manifested in administrative procedures relate to:

(1) the formulating of regulations ensuring adherence to specified standards and practises;

(2) the filing of applications, their review and subsequent denial or approval subject to specified standards and practices;

(3) the regulatory and enforcement practises and procedures; and

(4) the nature and degree of "on-site" monitoring to ensure maintenance of all specified environmental matters.

This Department is of the opinion that the duplication of legislative authority with regard to energy matters within the parameters of environmental matters is not in itself undesirable; provided that the ultimate power and authority of the Minister is visibly recognized by the public, the Board and the clientele of the Board and that no obscuration of this provision is

permitted in order that the Minister in consultation with Executive Council may discharge his responsibilities to the people of this Province, employing any one of those three strategies cited above. The Executive Council, in its discretion, has the prerogative of directing administrative responsibilities.

At the present time this provision is not clear to the public nor to the clientele of the Board, and as implied by our meeting here today, to the Board itself. This confusion is casting doubts in the minds of the public. The credibility of the Government's stated intention to strike a balance between resource development and environmental matters is being questioned, not only by the environmental activists, but also by the reasonably informed public. Our purpose today is, how do we resolve this conundrum.

1. THE STRENGTHS AND WEAKNESSES OF THE BOARD

The Board has developed an impressive international reputation in the administration of the oil and gas industry during the intensive exploration and growth periods of the past three decades. As Albertans, we are justifiably proud of it. Its staff of professional engineers and related technologists clearly have demonstrated their ability in this role. The Government has recognized this capacity and expertise in broadening the role of the Board to include coal and hydro and electric engery, which we are confident will be dealt with in the same expeditious manner.

We do however submit that the Board does not have the same capability in environmental matters and because of its single disciplinary, monolithically structured organization, cannot develop the capacity nor the attitude to integrate energy matters satisfactorily into the parameters of environmental matters without the considerable assistance of the Department and its relationships to other departments. Furthermore, the Board, if it were capable of so doing, could not continue to serve its clienteles interest and the public simultaneously because of conflicting objectives.

2. THE STRENGTHS AND WEAKNESSES OF THE DEPARTMENT

The Department is an amalgam of the former Environmental Health Services and the Water Resources Division which have developed air and water pollution control expertise and programs of national reputation and water quantity watershed protection and groundwater geology capabilities respectively over nearly the past two decades. Both divisions have developed extensive laboratory facilities. In addition, it includes the recently formed Interdepartmental Planning Division which serves as the secretariat to the Natural Resources Co-ordinating Council, the Conservation and Utilization Committee and extends interdepartmental co-ordination on environmental matters throughout all government departments and agencies. These interdepartmental co-ordinating units, especially the Conservation and Utilization Committee which, during the past five years, has become nationally unique in governmental administration for its interdisciplinary characteristics, relate this Department to the many other departments having a vital role to play -- Agriculture, Industry, Lands and Forests, Mines and Minerals, Municipal Affairs, etc., as well as the Board. In addition, the Department will have the potential of an Environmental Research Division and an Information Division, both presently in their formative stages.

The Minister also has at his disposal, the Environment Conservation Authority, to hold public hearings on environmental matters. Not in the same quasi-judicial manner of the Board, but on a more informal level since many of the environmental concerns expressed by society are not as succinct as reservoir engineering or hydro power market analysis or other concerns of the Board. The environmental hearings are necessary for the public to participate in policy making for the development of their resources and the maintenance of their environment. These are matters which cannot be left solely to the discretion of appointed professional civil servants.

DEPARTMENT OF THE ENVIRONMENT

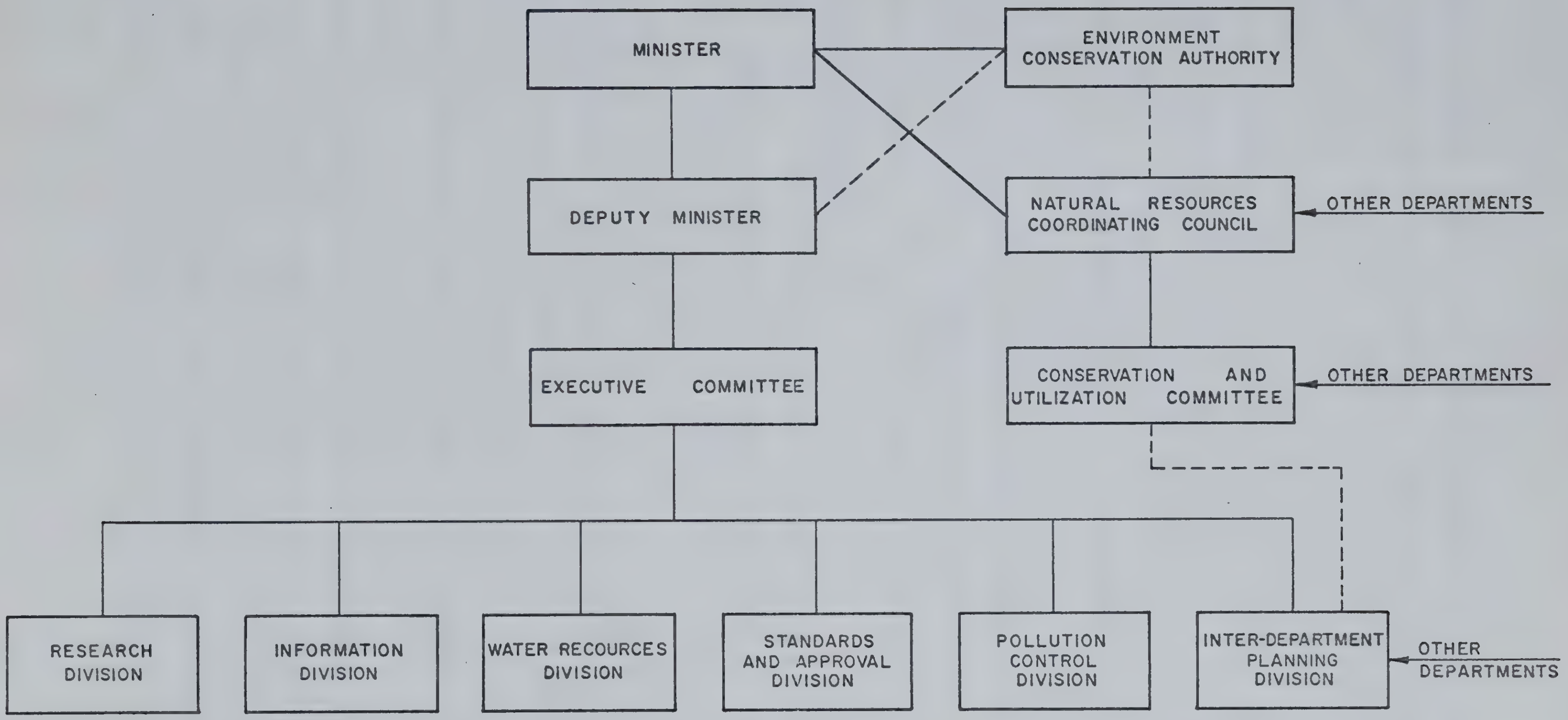

MINISTER
ENVIRONMENT CONSERVATION AUTHORITY
DEPUTY MINISTER
NATURAL RESOURCES COORDINATING COUNCIL
OTHER DEPARTMENTS
EXECUTIVE COMMITTEE
CONSERVATION AND UTILIZATION COMMITTEE
OTHER DEPARTMENTS
RESEARCH DIVISION
INFORMATION DIVISION
WATER RECOURCES DIVISION
STANDARDS AND APPROVAL DIVISION
POLLUTION CONTROL DIVISION
INTER-DEPARTMENT PLANNING DIVISION
OTHER DEPARTMENTS

FIGURE 2

More recently, reorganization of the Pollution Control Division has separated the enforcement capability from the water and air pollution standard setting and approval granting functions. This new unit, The Standard and Approval Division will be interdisciplinary, including various branches of engineering, biology, agrology, veterinary medicine, human health, aesthetics, etc. The Department organization is shown in Figure 2.

In its developmental stages, the Department also has weaknesses. Primarily and especially in monitoring, inspection and regulatory areas relative to pollution control. For this reason, it is visualized that many enforcement activities will be delegated to other administrative units of Government, especially where they have the demonstrated appropriate and specialized expertise required, and in energy matters to the Board.

C. OPPORTUNITIES FOR DEVELOPMENT

It becomes evident, that in those areas where the Board has strength, the Department is lacking and conversely, in the Departments areas of strength, the Board is lacking. The obvious solution is to combine forces for unified environmental action on behalf of the public.

This Department suggests two alternative approaches to resolving these differences between the Board and the Department in order that the administrative procedures properly reflect the wishes of the people, not only in energy matters and pollution control but also in all features of environmental matters.

1. ALTERNATIVE "A"

All proposals relative to energy matters would be submitted to the Department who and where applicable and in consultation with all appropriate departments of Government, including the Board, would collectively, and where necessary on the basis of an energy hearing and another environment hearing, submit recommendations to the Minister for the Government's decision. This

ALTERNATIVE A

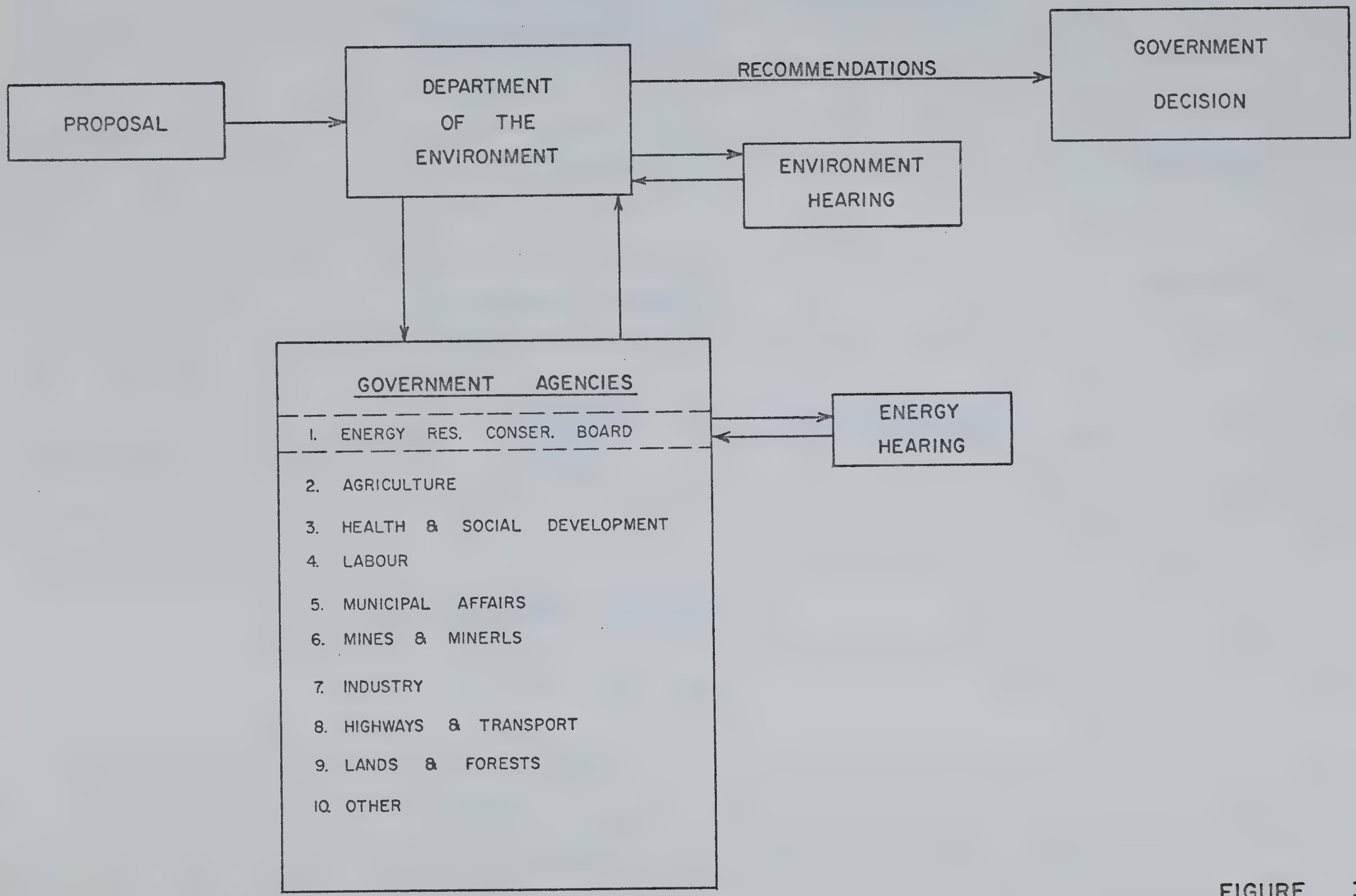


FIGURE 3

ALTERNATIVE "B"

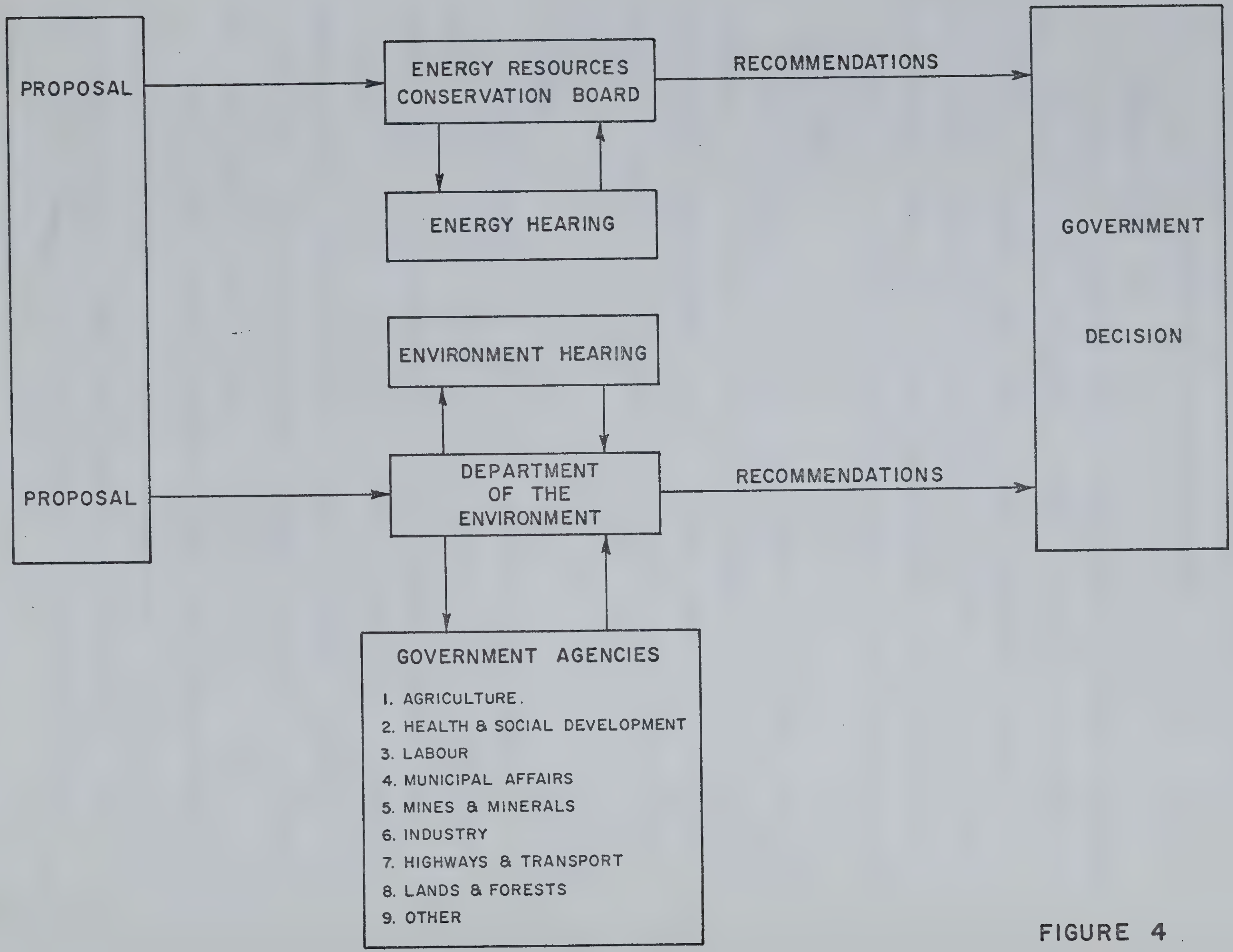


FIGURE 4

takes into consideration the holistic approach required in environmental management. This is graphically displayed in Figure 3.

2. ALTERNATIVE "B"

All proposals relative to energy matters would be submitted simultaneously by the applicant to the Board and the Department. The Board would process its application as in the past. The Department would, where applicable and in consultation with all appropriate departments of Government, collectively and where necessary on the basis of an environment hearing, submit recommendations to the Minister for the Government's decision. This is illustrated in Figure 4.

D. CASE STUDIES

The six cases outlined in Appendix "B" describes the implementation of alternative "A" and "B" for existing and future program activities. The first three point out existing conflict areas, the latter three project conflicts to deep well disposal, coal development and integrated land use development proposals.

E. SUMMARY

From an analysis of the case studies, existing or developing, it becomes increasingly apparent that these are complex problems involving many competing uses. Energy matters cannot be neatly packaged and dealt with unilaterally. They are, in addition to pollution control matters, water diversion matters, resource allocation, economic development, employment, and a host of others, part of the environmental milieu. To deny this is to ignore the very existence of nature and mans relationship with it.

The Department therefore respectfully requests this Committee, that those conflicting sections of the Boards statutes identified in Appendix "A" be amended or repealed in order that alternative "A" as proposed in this brief, can be implemented by the Department utilizing the three strategies outlined in the introduction.

This request is made with the full realization that public participation, anticipatory strategic planning and co-ordinated Government action is urgently required to strike a rational balance between our standard of living and our quality of life. Unilateral government agency decisions cannot provide the necessary leadership in these rapidly complicating situations, our success however lies in interdisciplinary, interdepartmental co-operation in the best interests of the people we serve - the citizens of Alberta.

APPENDIX "A"

TERMS OF REFERENCE

THE DEPARTMENT OF THE ENVIRONMENT

THE DEPARTMENT OF THE ENVIRONMENT ACT

8. The Minister, in consultation with the Co-ordinating Council,

(i) may, generally, do such acts as he considers necessary to promote the improvement of the environment for the benefit of the people of Alberta and future generations.

THE ENERGY RESOURCES CONSERVATION BOARD

THE ENERGY RESOURCES CONSERVATION ACT

2. The purposes of this Act are

(d) to control pollution and ensure environment conservation in the exploration for, processing, development and transportation of energy resources and energy,

THE HYDRO AND ELECTRIC ENERGY ACT

2. The purposes of this Act are

(e) to control pollution and ensure environment conservation in the development of hydro energy and in the generation, transmission and distribution of electric energy, and

THE OIL AND GAS CONSERVATION ACT

5. The purposes of this Act are

(e) to control pollution above, at or below the surface in the drilling of wells and in operations for the production of oil, gas and crude bitumen and in other operations over which the Board has jurisdiction.

HYDRO DEVELOPMENT

THE DEPARTMENT OF THE ENVIRONMENT

THE WATER RESOURCES ACT

6. (1) No person shall

(a) divert or use any water, or

(b) construct or cause to be constructed any works for the diversion of water, or

(c) operate or use any works for the diversion of water, or

(d) lay, place, build or erect in, over, under, upon or adjacent to any water any structure, device, contrivance or thing, or any earch, sand, gravel or other material, which interferes with or is capable of interfering with the present or future development, conservation or management of water, or

(e) remove or disturb any earth, sand, gravel or other material forming part of the bid, shore or banks of any water, where such removal or disturbance interferes with or is capable of interfering with the present or future development, conservation or management of water,

except under the authority of this Act, the regulations or a licence, interim licence or permit issued under this Act.

(1.1) Any person who contravenes subsection (1) is guilty of an offence.

(1.2) Each day or portion thereof that a person contravences subsection (1) shall be deemed to be a separate offence.

THE ENERGY RESOURCES CONSERVATION BOARD

THE HYDRO AND ELECTRIC ENERGY ACT

2. The purposes of this Act are

(e) to control pollution and ensure environment conservation in the development of hydro energy and in the generation, transmission and distribution of electric energy, and

7. (1) No person shall construct or operate

(a) a hydro development, or

(b) a power plant,

unless the Board, by order and with the authorization of the Lieutenant Governor in Council, has approved the hydro development or power plant.

8. (1) The Board shall refer an application for approval of a hydro development to the Department of the Environment and the Department of Lands and Forests for their advice.

(2) The Board shall refer an application for approval of a power plant to the Department of the Environment for its advice.

(3) In considering an application under section 7, the Board shall consider the advice of a Department to which the application was referred under subsection (1) or subsection (2).

Approvals and Permits

32. An approval or permit granted pursuant to this Act does not relieve the owner or operator of a hydro development, power plant, transmission line or electric distribution system from the necessity of obtaining any order, permit, licence, consent or authorization that he is required to obtain under any other Act or regulation under any other Act.

11. (1) Upon application being made therefore as provided in this Act and the regulations, a person may acquire, subject to any valid and subsisting rights,

(a) a licence to divert and use water for any or all of the following purposes:

(i) Domestic purposes;
(ii) municipal purposes;
(iii) industrial purposes;
(iv) irrigation purposes;
(v) water power purposes;
(vi) other purposes;

(b) a licence to impound water for the purpose of water management, flood control, erosion control, flow regulation, conservation, recreation or the propagation of fish or wildlife or for any like purpose, or

(c) a licence to use water in its natural state for the purpose of conservation, recreation or the propagation of fish or wildlife or for any like purpose, or

(d) A licence to divert water, otherwise than by impoundment or storage, for the purpose of water management, flood control, drainage, erosion control or channel re-alignment or for any like purpose, or

(e) a permit

(i) to lay, place, build or erect in, over, under, upon or adjacent to any water any structure, device, contribance or thing, or any earth, sand, gravel or other material, which will interfere with or will be capable of interfering with the present or future development, conservation or management of that water, or

(ii) to remove or disturb any earth, sand, gravel or other material forming part of the bed, shore or banks of any water, where the removal or disturbance will interfere with or will be capable of interfering with the present or future development, conservation or management of water.

15. (1) The Minister shall, except as otherwise directed by the Energy Resources Conservation Board,

(a) refer to that Board for its advice a copy of every application for a licence and the plans accompanying it, as soon as possible after the application is filed, and

(b) furnish to that Board a copy of every interim licence and licence, as soon as possible after it is issued.

THE CLEAN AIR ACT

4. (1) Subject to the regulations, no person shall commence the construction of

(a) any plant for the manufacture of petroleum products, natural gas products, chemical and allied products, pulp and paper products, stone, clay or glass products, cement and lime products, fertilizers or animal by-products, or

(b) any plant for primary metal production, metal processing, the processing of wood or wood products, the processing of coal, the processing of natural gas or its derivatives, the manufacture of asphalt or ready-mixed concrete, gravel crushing or meat packing, or

(c) any incinerator other than an incinerator for a one family dwelling, or

(d) any sewage treatment and disposal plant, or

(e) any hay and forage drier, seed cleaning plant or feed mill plant, or

(f) any thermal electric power generating plant or any steam generating plant, or

(g) any plant, structure or thing, where the Director has, prior to the commencement of construction, notified that person in writing that the proposed plant, structure or thing will, in the Director's opinion, be a source of air pollution and that it is subject to this section, or

(h) any other type of plant, structure or thing specified in the regulations as being subject to this section, or

(i) any alteration or addition to anything mentioned in clauses (a) to (h),

unless the plans and specifications therefore are approved by the Director.

THE CLEAN WATER ACT

4. (1) Subject to the regulations, no person shall commence the construction of

(a) a waterworks system, or

(b) a waste water treatment facility, or

(c) a sewer or sewage project, or

(d) a swimming pool other than one in or appurtenant to a one-family dwelling,

(e) any plant, structure or thing designed for use in preventing or controlling water pollutinn or regulating water quality, or

(f) any plant, structure or thing, where the Director has, prior to the commencement of construction, notified that person in writing that the proposed plant, structure or thing will, in the Director's opinion, be a source of water pollution and that it is subject to this section, or

(g) any other type of plant, structure or thing specified in the regulations as being subject to this section, or

(h) any alteration or addition to anything mentioned in clauses (a) to (g),

unless the plans and specifications therefore are approved by the Director.

POWER PLANT

THE DEPARTMENT OF THE ENVIRONMENT

THE WATER RESOURCES ACT

6. (1) No person shall

(a) divert or use any water, or

(b) construct or cause to be constructed any works for the diversion of water, or

(c) operate or use any works for the diversion of water, or

(d) lay, place, build or erect in, over, under, upon or adjacent to any water any structure, device, contrivance or thing, or any earth, sand, gravel or other material, which interferes with or is capable of interfering with the present or future development, conservation or management of water, or

(e) remove or disturb any earch, sand, gravel or other material forming part of the bid, shore or banks of any water, where such removal or disturbance interferes with or is capable of interfering with the present or future development, conservation or management of water,

except under the authority of this Act, the regulations or a licence, interim licence or permit issued under this Act.

11. (1) Upon application being made therefore as provided in this Act and the regulations, a person may acquire, subject to any valid and subsisting rights,

(a) a licence to divert and use water for any or all of the following purposes:

(i) domestic purposes;
(ii) municipal purposes;

THE ENERGY RESOURCES CONSERVATION BOARD

THE HYDRO AND ELECTRIC ENERGY ACT

2. The purposes of this Act are

(e) to control pollution and insure environment conservation in the development of hydro energy and in the generation, transmission and distribution of electric energy, and

3. (1) The Board may make regulations

6. as to the measures to be taken in the construction, operation or abandonment of any power plant or transmission line for

(i) the protection of life, property and wildlife,
(ii) the prevention and extinguishment of fires, and
(iii) the control of pollution and insuring environment conservation;

7. (1) No person shall construct or operate

(a) a hydro development, or

(b) a power plant,

unless the Board, by order and with the authorization of the Lieutenant Governor in Council, has approvid the hydro development or power plant.

8. (1) The Board shall refer an application for approval of a hydro development to the Department of the Environment and the Department of Lands and Forests for their advice.

(2) The Board shall refer an application for approval of a power plant to the Department of the Environment for its advice.

(iii) industrial purposes;
(iv) irrigation purposes;
(v) water power purposes;
(vi) other purposes;

(b) a licence to impound water for the purpose of water management, flood control, erosion control, flow regulation, conservation, recreation or the propagation of fish or wildlife or for any like purpose, or

(c) a licence to use water in its natural state for the purpose of conservation, recreation or the propagation of fish or wildlife or for any like purpose, or

(d) a licence to divert water, otherwise than by impoundment or storage, for the purpose of water management, flood control, drainage, erosion control or channel re-alignment or for any like purpose, or

(e) a permit

  (i) to lay, place, build or erect in, over, under, upon or adjacent to any water any structure, device, contrivance or thing, or any earth, sand, gravel or other material, which will interfere with or will be capable of interfering with the present or future development, conservation or management of that water, or
  (ii) to remove or disturb any earth, sand, gravel or other material forming part of the bed, short or banks of any water, where the removal or disturbance will interfere with or will be capable of interfering with the present or future development, conservation or management of water.

(3) In considering an application under section 7, the Board shall consider the advice of a Department to which the application was referred under subsection (1) or subsection (2).

Approvals and Permits

32. An approval or permit granted pursuant to this Act does not relieve the owner or operator of a hydro development, power plant, transmission line or electric distribution system from the necessity of obtaining any order, permit, licence, consent or authorization that he is required to obtain under any other Act or regulation under any other Act.

15. (1) The Minister shall, except as otherwise directed by the Energy Resources Conservation Board,

(a) refer to that Board for its advice a copy of every application for a licence and the plans accompanying it, as soon as possible after the application is filed, and

(b) furnish to that Board a copy of every interim licence and licence, as soon as possible after it is issued.

THE CLEAN AIR ACT

4. (1) Subject to the regulations, no person shall commence the construction of

(a) any plant for the manufacture of petroleum products, natural gas products, chemical and allied products, pulp and paper products, stone, clay or glass products, cement and lime products, fertilizers or animal by-products, or

(b) any plant for primary metal production, metal processing, the processing of wood or wood products, the processing of coal, the processing of natural gas or its derivatives, the manufacture of asphalt or ready-mixed concrete, gravel crushing or meat packing, or

(c) any incinerator other than an incinerator for a one-family dwelling, or

(d) any sewage treatment and disposal plant, or

(e) any hay and forage drier, seed cleaning plant or feed mill plant, or

(f) any thermal electric power generating plant or any steam generating plant, or

(g) any plant, structure or thing, where the Director has prior to the commencement of construction, notified that person in writing that the proposed plant, structure or thing will, in the Director's opinion, be a source of air pollution and that it is subject to this section, or

(h) any other type of plant, structure or thing specified in the regulations as being subject to this section, or

(i) any alteration or addition to anything mentioned in clauses (a) to (h),

unless the plans and specifications therefore are approved by the Director.

THE CLEAN WATER ACT

4. (1) Subject to the regulations, no person shall commence the construction of

(a) a waterworks system, or

(b) a waste water treatment facility, or

(c) a sewer or sewage project, or

(d) a swimming pool other than one in or appurtenant to a one-family dwelling,

(e) any plant, structure or thing designed for use in preventing or controlling water pollution or regulating water quality, or

(f) any plant, structure or thing, where the Director has, prior to the commencement of construction notified that person in writing that the proposed plant, structure or thing will, in the Director's opinion, be a source of water pollution and that it is subject to this section, or

(g) any other type of plant, structure or thing specified in the regulations as being subject to this section, or

(h) any alteration or addition to anything mentioned in clauses (a) to (g),

unless the plans and specifications therefore are approved by the Director.

10. The Lieutenant Governor in Council may make regulations

9. for the control, restriction or prohibition of any activities in, on or over surface water for the purpose of preventing, alleviating, controlling or stopping water pollution;

TRANSMISSION LINES

THE DEPARTMENT OF THE ENVIRONMENT

THE WATER RESOURCES ACT

6. (1) No person shall

(a) divert or use any water, or

(b) construct or cause to be constructed any works for the diversion of water, or

(c) operate or use any works for the diversion of water; or

(d) lay, place, build or erect in, over, under, upon or adjacent to any water any structure, device, contrivance or thing, or any earth, sand, gravel or other material, which interferes with or is capable of interfering with the present of future development, conservation or management of water, or

(e) remove or disturb any earth, sand, gravel or other material forming part of the bid, shore or banks of any water, where such removal or disturbance interferes with or is capable of interfering with the present or future development, conservation or management of water,

except under the authority of this Act, the regulations or a licence, interim licence or permit issued under this Act.

(1.1) Any person who contravenes subsection (1) is guilty of an offence.

(1.2) Each day or portion thereof that a person contravenes subsection (1) shall be deemed to be a separate offence.

THE ENERGY RESOURCES CONSERVATION BOARD

THE HYDRO AND ELECTRIC ENERGY ACT

2. The purposes of this Act are

(e) to control pollution and ensure environment conservation in the development of hydro energy and in the generation, transmission and distribution of electric energy, and

3. (1) The Board may make regulations

6. as to the measures to be taken in the construction, operation or abandonment of any power plant or transmission line for

(i) the protection of life, property and wildlife,
(ii) the prevention and extinguishment of fires, and
(iii) the control of pollution and ensuring environment conservation;

Transmission Lines

9. (1) No person shall construct a transmission line or any part thereof, or undertake any operations preparatory to the construction thereof, unless he is the holder of a permit issued by the Board.

10. (1) The Board shall refer an application for a permit or an amendment of a permit to the Department of the Environment and the Department of Lands and Forests for their advice.

(2) In considering an application under section 9, the Board shall consider the advice of a Department to which the application was referred under subsection (1).

11. (1) Upon application being made therefore as provided in this Act and the regulations, a person may acquire, subject to any valid and subsisting rights,

(a) a licence to divert and use water for any or all of the following purposes:

(i) domestic purposes;
(ii) municipal purposes;
(iii) industrial purposes;
(iv) irrigation purposes;
(v) water power purposes;
(vi) other purposes;

(b) a licence to impound water for the purpose of water management, flood control, erosion control, flow regulation, conservation, recreation or the propagation of fish or wildlife or for any like purpose, or

(c) a licence to use water in its natural state for the purpose of conservation, recreation or the propagation of fish or wildlife or for any like purposes, or

(d) a licence to divert water, otherwise than by impoundment or storage, for the purpose of water management, flood control, drainage, erosion control or channel re-alighment or for an like purpose, or

(e) a permit

(i) to lay, place, build or erect in, over, under, upon or adjacent to any water any structure, device, contrivance or thing, or any earth, sand, gravel or other material, which will interfere with or will be capable of interfering with the present or future development, conservation or management of that water, or

(ii) to remove or disturb any earth, sand, gravel or other material forming part of the bed, shore or banks of any water, where the removal or disturbance will interfere with or will be capable of interfering with the present or future development, conservation or management of water.

28. (1) An operator has the right to construct a transmission line

(a) over the land comprising the bed or shore of any river, stream, watercourse, lake or other body of water owned by the Crown in right of Alberta, and

(b) on, across or under the land comprising the bed or shore of any river, stream, watercourse, lake or other body of water owned by the Crown in right of Alberta in any case where the description of land in a certificate of title issued to a person other than the Crown does not except, reserve or otherwise refer to the land comprising that bed or shore,

without the necessity of acquiring any estate or interest in that land from the Crown in right of Alberta but subject to estates or interests held by persons other than the Crown.

(2) Where an operator proposes to construct a transmission line over land comprising the bed or shore of any river, stream, watercourse, lake or other body of water owned by the Crown in right of Alberta and a certificate of title issued to a person other than the Crown excepts, reserves or otherwise refers to the land comprising that bed or shore, the operator shall, before commencing construction, file with the Department of the Environment and the Department of Lands and Forests, both at Edmonton, a copy of a plan of the right-of-way for the transmission line or the part of the plan that pertains to the land comprising that bed or shore, and in the construction of the transmission line, shall observe the conditions prescribed by either of those Departments.

Approvals and Permits

32. An approval or permit granted pursuant to this Act does not relieve the owner or operator of a hydro development, power plant, transmission line or electric distribution system from the necessity of obtaining any order, permit, licence, consent or authorization that he is required to obtain under any other Act or regulation under any other Act.

15. (1) The Minister shall, except as otherwise directed by the Energy Resources Conservation Board,

(a) refer to that Board for its advice a copy of every application for a licence and the plans accompanying it, as soon as possible after the application is filed, and

(b) furnish to that Board a copy of every interim licence and licence, as soon as possible after it is issued.

THE CLEAN AIR ACT

4. (1) Subject to the regulations, no person shall commence the construction of

(a) any plant for the manufacture of petroleum products, natural gas products, chemical and allied products, pulp and paper products, stone, clay or glass products, cement and lime products, fertilizers or animal by-products, or

(b) any plant for primary metal production, metal processing, the processing of wood or wood products, the processing of coal, the processing of natural gas or its derivatives, the manufacture of asphalt or ready-mixed concrete, gravel crushing or meat packing, or

(c) any incinerator other than an incinerator for a one-family dwelling, or

(d) any sewage treatment and disposal plant, or

(e) any hay and forage drier, seed cleaning plant or feed mill plant, or

(f) any thermal electric power generating plant or any steam generating plant, or

(g) any plant, structure or thing, where the Director has, prior to the commencement of construction, notified that person in writing that the proposed plant, structure or thing will, in the Director's opinion, be a source of air pollution and that it is subject to this section. or

(h) any other type of plant, structure or thing specified in the regulations as being subject to this section, or

(i) any alteration or addition to anything mentioned in clauses (a) to (h),

unless the plans and specifications therefore are approved by the Director.

THE CLEAN WATER ACT

4. (1) Subject to the regulations, no person shall commence the construction of

(a) a waterworks system, or

(b) a waste water treatment facility, or

(c) a sewer or sewage project, or

(d) a swimming pool other than one in or appurtenant to a one-family dwelling,

(e) any plant, structure or thing designed for use in preventing or controlling water pollution or regulating water quality, or

(f) any plant, structure or thing, where the Director has, prior to the commencement of construction, notified that person in writing that the proposed plant, structure or thing will, in the Director's opinion, be a source of water pollution and that it is subject to this section, or

(g) any other type of plant, structure or thing specified in the regulations as being subject to this section, or

(h) any alteration or addition to anything mentioned in clauses (a) to (g),

unless the plans and specifications therefore are approved by the Director

10. The Lieutenant Governor in Council may make regulations

9. for the control, restriction or prohibition of any activities in, on or over surface water for the purpose of preventing, alleviating, controlling or stopping water pollution;

WATER, OIL AND GAS WELLS

THE DEPARTMENT OF THE ENVIRONMENT

THE WATER RESOURCES ACT

6. (1) No person shall

- (a) divert or use any water, or
- (b) construct or cause to be constructed any works for the diversion of water, or
- (c) operate or use any works for the diversion of water, or
- (d) lay, place, build or erect in, over, under, upon or adjacent to any water any structure, device, contrivance or thing, or any earth, sand, gravel or other material, which interferes with or is capable of interfering with the present or future development, conservation or management of water, or
- (e) remove or disturb any earth, sand, gravel or other material forming part of the bed, shore or banks of any water, where such removal or disturbance interferes with or is capable of interfering with the present or future development, conservation or management of water,

except under the authority of this Act, the regulations or a licence, interim licence or permit issued under this Act.

(1.1) Any person who contravenes subsection (1) is guilty of an offence.

(1.2) Each day or portion thereof that a person contravenes subsection (1) shall be deemed to be a separate offence.

THE ENERGY RESOURCES CONSERVATION BOARD

THE OIL AND GAS CONSERVATION ACT

22. (1) The Board may make regulations

4. requiring notice to the Board of intention and approval of the Board before

- (i) the suspension of normal drilling or normal producing or injection operations, or
- (ii) the abandonment of a well, or
- (iii) the reconditioning or recompletion of a well, or
- (iv) the removal of casing from a well, or
- (v) the resumption of drilling operations after a previous completion, suspension or abandonment of a well, or
- (vi) the resumption of producing or injecting operations at a well after a previous suspension, or
- (vii) the commencement of the injection of gas, air, water or other substance to an underground formation in a well that has been drilled or operated for another purpose;

16. as to the casing, equipment, materials and installations to be used in the drilling, completion, operation and production of wells for the purpose of obtaining water for use in enhanced recovery operations;

11. (1) Upon application being made therefore as provided in this Act and the regulations, a person may acquire, subject to any valid and subsisting rights,

(a) a licence to divert and use water for any or all of the following purposes:

(i) domestic purposes;
(ii) municipal purposes;
(iii) industrial purposes;
(iv) irrigation purposes;
(v) water power purposes;
(vi) other purposes;

(b) a licence to impound water for the purpose of water management, flood control, erosion control, flow regulation, conservation, recreation or the propagation of fish or wildlife or for any like purpose, or

(c) a licence to use water in its natural state for the purpose of conservation, recreation or the propagation of fish or wildlife or for any like purpose, or

(d) a licence to divert water, otherwise than by impoundment or storage, for the purpose of water management, flood control, drainage, erosion control or channel re-alignment or for any like purpose, or

(e) a permit

(i) to lay, place, build or erect in, over, under, upon or adjacent to any water any structure, device, contrivance or thing, or any earth, sand, gravel or other material, which will interfere with or will be capable of interfering with the present or future development, conservation or management of that water, or

(ii) to remove or disturb any earth, sand, gravel or other material forming part of the bed, shore or banks of any water, where the removal or disturbance will interfere with or will be capable of interfering with the present or future development, conservation or management of water.

15. (1) The Minister shall, except as otherwise directed by the Energy Resources Conservation Board,

(a) refer to that Board for its advice a copy of every application for a licence and the plans accompanying it, as soon as possible after the application is filed, and

(b) furnish to that Board a copy of every interim licence and licence, as soon as possible after it is issued.

THE GROUNDWATER CONTROL ACT

4. No person shall commence a well on lands of which he is not the owner unless he is the holder of a subsisting annual permit from the Director entitling him to bore a well thereon.
(R.S.A. 1955, c. 135, s. 4)

10. The Lieutenant Governor in Council may make regulations

(a) respecting the methods of boring wells and of determining and developing sources of ground water and the precautions and measures to be taken during boring and development operations of wells,

(b) prescribing the procedure and the conditions under which an operator can obtain a permit, the fee to be paid and the information to be supplied by an applicant for a permit,

(c) requiring the furnishing of reports, returns, geological and other information and specimens and samples,

(d) requiring the provision of proper anchorage, casing and cementation of well casings,

(e) prescribing the specifications of casing and other materials in wells,

(f) requiring the reporting of dry or insufficiently productive wells,

(g) prescribing the abandonment of wells and the methods and requirements to be observed in abandonment operations,

(h) respecting the control and utilization of the flow of water from a well or other source of ground water and

(i) respecting

  (i) any other matter incidental to the conservation development and control of ground water, and

  (ii) the boring and management of wells and production therefrom. (R.S.A. 1955, c. 135, s. 10)

THE CLEAN AIR ACT

4. (1) Subject to the regulations, no person shall commence the construction of

(a) any plant for the manufacture of petroleum products, natural gas products, chemical and allied products, pulp and paper products, stone, clay or glass products, cement and lime products, fertilizers or animal by-products, or

(b) any plant for primary metal production, metal processing, the processing of wood or wood products, the processing of coal, the processing of natural gas or its derivatives, the manufacture of asphalt or ready-mixed concrete, gravel crushing or meat packing, or

(c) any incinerator other than an incinerator for a one-family dwelling, or

THE OIL AND GAS CONSERVATION ACT

5. The purposes of this Act are

(e) to control pollution above, at or below the surface in the drilling of wells and in operations for the production of oil, gas and crude bitumen and in other operations over which the Board has jurisdiction.

22. (1) The Board may make regulations

22. as to the location of wells and the methods of operation to be obeserved during drilling and in the subsequent management and conduct of any well for any purpose including, without restricting the generality of the foregoing,

  (i) the protection of life, property and wildlife,
  (ii) the prevention and extinguishment of fires,
  (iii) the prevention of wells blowing out of control, and
  (iv) the prevention of pollution;

(d) any sewage treatment and disposal plant, or

(e) any hay and forage drier, seed cleaning plant or feed mill plant, or

(f) any thermal electric power generating plant or any steam generating plant, or

(g) any plant, structure or thing, where the Director has, prior to the commencement of construction, notified that person in writing that the proposed plant, structure or thing will, in the Director's opinion, be a source of air pollution and that it is subject to this section, or

(h) any other type of plant, structure or thing specified in the regulations as being subject to this section, or

(i) any alteration or addition to anything mentioned in clauses (a) to (h),

unless the plans and specifications therefore are approved by the Director.

THE CLEAN WATER ACT

4. (1) Subject to the regulations, no person shall commence the construction of

(a) a waterworks system, or

(b) a waste water treatment facility, or

(c) a sewer or sewerage project, or

(d) a swimming pool other than one in or appurtenant to a one-family dwelling,

(e) any plant, structure or thing designed for use in preventing or controlling water pollution or regulating water quality, or

28. prescribing the measures to be taken to control pollution above, at or below the surface in the drilling of wells and in operations for the production of oil, gas and crude bitumen and in other operations over which the Board has jurisdiction;

(f) any plant, structure or thing, where the Director has, prior to the commencement of construction, notified that person in writing that the proposed plant, structure or thing will, in the Director's opinion, be a source of water pollution and that it is subject to this section, or

(g) any other type of plant, structure or thing specified in the regulations as being subject to this section, or

(h) any alteration or addition to anything mentioned in clauses (a) to (g),

unless the plans and specifications therefore are approved by the Director.

10. The Lieutenant Governor in Council may make regulations

8. for the control, restriction or prohibition of any use of land or any action in respect of land whereby any substance is deposited or discharged on or under any land

(i) adjacent to or underlying any watercourse, or
(ii) adjacent to or overlying an aquifer;

9. for the control, restriction or prohibition of any activities in, on or over surface water for the purpose of preventing, alleviating, controlling or stopping water pollution;

20. for controlling, restricting or prohibiting the drilling of test holes or the drilling or use of water wells, and prescribing the duties of drillers or owners of water wells;

THE DEPARTMENT OF THE ENVIRONMENT ACT

14. (1) Upon the report of the Minister

(a) that circumstances exist whereby a natural resource in any part of Alberta has been or is being destroyed or damaged or is being or is likely to be polluted, and

(b) that urgent co-ordinated action is required for the purpose of preventing, alleviating, controlling or stopping the destruction, damage or pollution,

THE OIL AND GAS CONSERVATION ACT

133.1 (1) Where oil escapes from a well, battery or pipe line or from an unidentified source and it appears to the Board that such oil may not otherwise be contained and cleaned up forthwith, the Board may

(a) direct the licensee or pipe line operator, or such licensees or pipe line operators who appear to the Board could be responsible for a well, battery or pipe line from which oil escaped, to take steps it considers necessary to contain and clean up oil which has escaped and to prevent further escape of oil, or

the Lieutenant Governor in Council may by order declare that a state of emergency exists with respect to those circumstances for the purposes of this section.

(b) enter upon the area where oil has spilled and conduct such operations as it considers necessary to contain and clean up oil which has escaped and to prevent further escape of oil.

REFINERIES AND TARSANDS OPERATIONS

THE DEPARTMENT OF THE ENVIRONMENT

THE CLEAN AIR ACT

4. (1) Subject to the regulations, no person shall commence the construction of

- (a) any plant for the manufacture of petroleum products, natural gas products, chemical and allied products, pulp and paper products, stone, clay or glass products, cement and lime products, fertilizers or animal by-products, or
- (b) any plant for primary metal production, metal processing, the processing of wood or wood products, the processing of coal, the processing of natural gas or its derivatives, the manufacture of asphalt or ready-mixed concrete, gravel crushing or meat packing, or
- (c) any incinerator other than an incinerator for a one-family dwelling, or
- (d) any sewage treatment and disposal plant, or
- (e) any hay and forage drier, seed cleaning plant or feed mill plant, or
- (f) any thermal electric power generating plant or any steam generating plant, or
- (g) any plant, structure or thing, where the Director has, prior to the commencement of construction, notified that person in writing that the proposed plant, structure or thing will, in the Director's opinion, be a source of air pollution and that it is subject to this section, or
- (h) any other type of plant, structure or thing specified in the regulations as being subject to this section, or

THE ENERGY RESOURCES CONSERVATION BOARD

THE OIL AND GAS CONSERVATION ACT

5. The purposes of this Act are

- (e) to control pollution above, at or below the surface in the drilling of wells and in operations for the production of oil, gas and crude bitumen and in other operations over which the Board has jurisdiction.

22. (1) The Board may make regulations

- 28. prescribing the measures to be taken to control pollution above, at or below the surface in the drilling of wells and in operations for the production of oil, gas and crude bitumen and in other operations over which the Board has jurisdiction;

(i) any alteration or addition to anything mentioned in clauses (a) to (h),

unless the plans and specifications therefore are approved by the Director.

THE CLEAN WATER ACT

4. (1) Subject to the regulations, no person shall commence the construction of

(a) a waterworks system, or

(b) a waste water treatment facility, or

(c) a sewage or sewage project, or

(d) a swimming pool other than one in or appurtenant to a one-family dwelling,

(e) any plant, structure or thing designed for use in preventing or controlling water pollution or regulating water quality, or

(f) any plant, structure or thing, where the Director has, prior to the commencement of construction, notified that person in writing that the proposed plant, structure or thing will, in the Director's opinion, be a source of water pollution and that it is subject to this section, or

(g) any other type of plant, structure or thing specified in the regulations as being subject to this section, or

(h) any alteration or addition to anything mentioned in clauses (a) to (g),

unless the plans and specifications therefore are approved by the Director.

10. The Lieutenant Governor in Council may make regulations

8. for the control, restriction or prohibition of any use of land or any action in respect of land whereby any substance is deposited or discharged on or under any land

   (i) adjacent to or underlying any watercourse, or

   (ii) adjacent to or overlying an aquifer;

THE GROUNDWATER CONTROL ACT

4. No person shall commence a well on lands of which he is not the owner unless he is the holder of a subsisting annual permit from the Director entitling him to bore a well thereon. @ (R.S.A. 1955, c. 135, s. 4)

10. The lieutenant governor in Council may make regulations

(a) respecting the methods of boring wells and of determining and developing sources of ground water and the precautions and measures to be taken during boring and development operations of wells,

(b) prescribing the procedure and the conditions under which an operator can obtain a permit, the fee to be paid and the information to be supplied by an applicant for a permit,

(c) requiring the furnishing of reports, returns, geological and other information and specimens and samples,

(d) requiring the provision of proper anchorage, casing and cementation of well casings,

(e) prescribing the specifications of casing and other materials in wells,

(f) requiring the reporting of dry or insufficiently productive wells,

(g) prescribing the abandonment of wells and the methods and requirements to be observed in abandonment operations,

(h) respecting the control and utilization of the flow of water from a well or other source of ground water, and

(i) respecting

  (i) any other mater incidental to the conservation, development and control of ground water, and

  (ii) the boring and management of wells and production therefrom.
(R.S.A. 1955, c. 135, s. 10)

THE WATER RESOURCES ACT

6. (1) No person shall

(a) divert or use any water, or

(b) construct or cause to be constructed any works for the diversion of water, or

(c) operate or use any works for the diversion of water, or

(d) lay, place, build or erect in, over, under, upon or adjacent to any water any structure, device, contrivance or thing, or any earth, sand, gravel or other material, which interferes with or is capable of interfering with the present or future development, conservation or management of water, or

(e) remove or disturb any earth, sand, gravel or other material forming part of the bed, shore or banks of any water, where such removal or disturbance interferes with or is capable of interfering with the present or future development, conservation or management of water,

except under the authority of this Act, the regulations or a licence, interim licence or permit issued under this Act.

(1.1) Any person who contravenes subsection (1) is guilty of an offence.

(1.2) Each day or portion thereof that a person contravenes subsection (1) shall be deemed to be a separate offence.

11. (1) Upon application being made therefore as provided in this Act and the regulations, a person may acquire, subject to any valid and subsisting rights,

(a) a licence to divert and use water for any or all of the following purposes:

(i) domestic purposes;
(ii) municipal purposes;
(iii) industrial purposes;
(iv) irrigation purposes;
(v) water power purposes;
(vi) other purposes;

(b) a licence to impound water for the purpose of water management, flood control, erosion control, flow regulation, conservation, recreation or the propagation of fish or wildlife or for any like purpose, or

(c) a licence to use water in its natural state for the purpose of conservation, recreation or the propagation of fish or wildlife or for any like purpose, or

(d) a licence to divert water, otherwise than by impoundment or storage, for the purpose of water management, flood control, drainage, erosion control or channel re-alignment or for any like purpose, or

(e) a permit

(i) to lay, place, build or erect in, over, under, upon or adjacent to any water any structure, device, contrivance or thing, or any earth, sand, gravel or other material, which will interfere with or will be capable of interfering with the present of future development, conservation or management of that water, or

(ii) to remove or disturb any earth, sand, gravel or other material forming part of the bed, shore, or banks of any water, where the removal or disturbance will interfere with or will be capable of interfering with the present or future development, conservation or management of water.

15. (1) The Minister shall, except as otherwise directed by the Energy Resources Conservation Board,

(a) refer to that Board for its advice a copy of every application for a licence and the plans accompanying it, as soon as possible after the application is filed, and

(b) furnish to that Board a copy of every interim licence and licence, as soon as possible after it is issued.

APPENDIX "B"

CASE STUDIES

1. AIR POLLUTION CONTROL

(a) THE CLEAN AIR ACT

The Clean Air Act requires that any plant that may be a source of air pollution must submit plans and specifications for review and approval regardless of the type of industry involved. It further requires that standards be set to safeguard and protect the total environment. This includes the health of people and animals (domestic and wildlife) and the protection of agricultural operations, forests, and parks and recreational facilities.

(b) APPLICATION AND APPROVAL PROCEDURES

When an application is made to the Department, it can then be distributed to all agencies that will have a directive input to the submission for an air pollution approval. The Department which has a body of expertise, who initially have set the most recent technologically feasible standards can properly assess and approve, with proper constraints and conditions, the application. This precludes the interpretation of the standard by the Board which is the present situation in respect to gas processing and sulfur recovery plants and the assumed role for power generating plants.

The fact that the Board did not have the expertise to examine in total the cumulative sulfur dioxide concentration at the Canadian Utilities plant at Forestburg and the fact that the Department witness had to point out the deficiencies at the hearing in August, caused considerable embarrassment to all concerned and therefore underscores the need for improvements in this procedure. It also follows that after approval is given, in certain cases enforcement could be more effectively delegated to agencies, boards, etc. for proper implementation.

(c) AREAS OF DUPLICATED RESPONSIBILITIES AND CONFLICT

1. Duplication between the Board approvals and the Department approvals appears evident in the following types of industry:

    (i) Gas Processing Plants

    (ii) Sulfur Recovery Plants

    (iii) Oil Sands Plants

    (iv) Power Plants

The Department has sole responsibility for all other plants in the Province. Because of this it must maintain a staff versed in air pollution technology and environmental protection. This competent staff is required regardless of the outcome of this hearing. Since it must review all the above mentioned plants, similar duplicate staff with the Board should not be required or continued.

2. Stack Sampling

The Department has developed the sampling methods that have become standards for Alberta and are the recognized leaders in this field in Canada. It would appear that the Department would continue to sample all plants in the Province as it has done from 1961 to 1970. During 1971 the Board staff sampled only the sulfur plant stacks while the Department continued to sample all other industries. The Department continued to have monitoring responsiblities at all plants in the Province. It would be most advantageous for the Department to carry out the stack sampling surveys and review production rates in order that a better correlation can be made to the monitoring results and possible enforcement requirements.

(d) ALTERNATIVES

It is very evident from the foregoing statements that only Alternative "A" would best fit the responsibilities for all aspects of air pollution control.

2. WATER POLLUTION CONTROL

(a) THE CLEAN WATER ACT

Subject to the regulations, no person shall commence the construction of any facility, plant, construction or thing utilizing water or in the Departments opinion, leading to water pollution, or make any alterations or addition, unless the plans and specifications therefore are approved by the Department.

(b) APPLICATION AND APPROVALS PROCEDURES

The Clean Water Regulations, Section 2 (2) state "where the Director is satisfied with the plans and specifications submitted to him with respect to a proposed water facility, or alteration to an existing water facility, he may issue his approval in the form specified in Schedule 1."

The control of water pollution comes under the purview of the Clean Water Act. Approval for construction is obtained from the Department. After consultation with the various interested agencies and the various disciplines within the Department, and other departments, a water pollution approval may be issued. Environmental management is exceedingly complex, therefore it cannot be handled by technologists of a single discipline. Environmental protection is a complex disciplinary field which must be practiced interdisciplinary; and should not be a side line of any one agency.

(c) AREAS OF DUPLICATED RESPONSIBILITIES AND CONFLICT

The following sections of Acts administered by the Board are in conflict: The Hydro and Electric Energy Act - Part 1, 3, (1) 6 (iii).

The Board may make regulations regarding the control of pollution and

ensuring environmental conservation. This delegates the power to the Board to make regulations irrespective of any regulations under the Clean Water Act.

Similarly in part 2, 8, (1) & (2), the Board shall refer applications to the Department of the Environment for advice. This implies that environmental protection may not receive sufficient consideration or emphasis in the Board's approach in approving or establishment of plants since the Departments comments are only regarded as advisory.

A situation may develop where an environmental agency, with a high degree of technical competence and experience, is only advising a non-environmental agency with very little environmental experience on issues involving extremely critical environmental matters.

The Oil and Gas Conservation Act - Part 5, 22, (1) 22 (iv)

The Board may make regulations for location, methods, operations, etc. for the prevention of pollution. This is another obvious conflict of legislation between the Board and the Department.

(d) ALTERNATIVES

The Department should be responsible for all matters relating to water pollution especially where there is a discharge to surface waters from any source. Co-ordination, assessment and permit requirements should be the primary responsibility of the Department. Environmental protection should not be justified in the same context with issues such as economics or resource development.

For example, in the Syncrude Hearing, ten to twenty minutes were devoted to environmental matters while six to seven hours were devoted to establishing the economic justification of tar sands development.

Consideration must be given to the basin approach to water pollution control. Co-ordination of this concept becomes difficult if the Department has control over pollution from all sources except gas plants, power plants,

and coal processing facilities.

3. WATER DIVERSION: SURFACE AND SUBSURFACE

(a) THE WATER RESOURCES ACT

Details in Appendix "C".

(b) APPLICATION AND APPROVAL PROCEDURES

1. Preliminary Permit: mandatory for groundwater exploration, Minister's option for surface investigations.

   - Main function: To give lead time to assess water demand in light of other uses and other resources.

2. Application filed to use water and/or to construct works for the diversion of water.
3. Public advertising of filing of application.

   - Main function to provide for public inputs.

4. Evaluation of application and plans: changes in plan may be required; terms and conditions may be attached to right to divert and use water.

   - Main function: to protect source of supply, other users and environment.

5. Licence issued after construction ensure works built according to authorized plans.
6. Water use returns to ensure compliance with terms of licence to provide data for; adjusting licences as required; refining initial allocation procedures; and basic information for general hydrologic studies.
7. Licences may be cancelled for reason to provide for changing demands.

NOTE: Above procedures apply to all beneficial uses of water and to all sources whether surface or groundwater.

(c) AREAS OF DUPLICATED RESPONSIBILITY AND/OR CONFLICT

Insofar as use of water there are two main problem areas:

I. Groundwater

1. The Water Resources Act provides for obtaining a Licence to Use water for any or all beneficial purposes from any source of supply whether surface or groundwater.
2. The Oil and Gas Conservation Act provides for issue of a Licence to Drill wells or test holes for any purpose where depth of hole is over 500 feet or in any case when the hole may penetrate a commercial gas or oil zone. It also regulates the injection of water into oil formations for pressure maintenance.
3. In the absence of procedures to issue licences to use groundwater the Board in 1965 by arrangement with the Water Resources Division, the Research Council of Alberta and the then Oil and Gas Conservation Board began attaching supplementary conditions to its Licence to Drill where water was to be obtained for injection purposes. The supplementary conditions were aimed at obtaining basic information plus the protection of existing groundwater users -- basic functions of The Water Resources Act.
4. By arrangement agreed upon by the three agencies the licencing of use of groundwater for injection purposes was to be transferred to Water Resources Division by April 1, 1971 or as soon thereafter as convenient. (Events of the past summer and fall have tended to delay said transfer.)

5. In the meantime Water Resources Division is issuing preliminary permits for groundwater exploration and is processing applications to use groundwater from other types of industry and from municipalities under authority of the 1971 amendments and using existing procedures under The Water Resources Act.

II. Water Power (Hydro Energy)

1. Water Power Regulations under The Water Resources Act provide for the development of works for the use of water and also have applied to the transmission and use of electrical energy. Discussions in the past have been aimed at confining Water Resources Division responsibility to the diversion and use of water per se.

2. The new Hydro and Electric Energy Act tends to encroach in the area of water supply and development of water storage and control works. A determination of the adequacy of water supply and appropriate reservation of same must be a prerequisite to any studies of hydro energy development, distribution and use.

4. DEEP DISPOSAL WELLS

(a) APPLICATION AND APPROVAL PROCEDURES

(i) The Department proposes that present policy continue with the Board setting standard and regulating wells in accordance with the Departments policy objectives. They provide the Department with full details of all wells and their operation. They obtain additional information as requested by the Department.

(ii) The Department should be responsible for all necessary monitoring of disposal wells to ensure that they are being operated as designed and that there are no adverse effects on the environment. All controls and restrictions placed on wells should be imposed through the Board.

The construction and operation of deep disposal wells is principally in the field of reservoir engineering. This expertise is, at present, with the Board. The Department has the potential expertise to construct and operate observation wells. It is the Departments proposal that the two agencies should handle these respective fields of responsibility and expertise.

5. WATERSHED PROTECTION AND SURFACE RECLAMATION

(a) INTRODUCTION

Watershed protection is basically the maintenance and management of those land areas adjacent to streams, rivers, and water bodies. The purpose of watershed protection is to prevent or control unnecessary sedimentation and also to assure that these land areas are available for compatible uses such as recreation and wildlife. Therefore the management and reclamation requirements increase considerably where non compatible uses are permitted.

(b) APPLICATION AND APPROVAL PROCEDURES

There are two basic approvals required in the exploration or development of any particular resource. One is concerned with the supply, quality, and economics of developing and marketing the product. The other is concerned with the environmental effects and the reclamation aspects. It would be very difficult to name one agency responsible for both approvals and expect that agency to achieve two objectives which in themselves are conflicting: i.e. to protect the environment and at the same time achieve maximum development

of resources.

Guidelines have been established for watershed protection, however, they are only guidelines and each development must be evaluated to establish specific recommendations, terms and conditions. The Department submits that approval of items such as watershed protection and surface reclamation should be part of a co-ordinated environmental report.

(c) PROCEDURES

Where coal development is an example, it can be demonstrated which main activities are involved. The three phases to any coal development are:

1. Lease Sales

   This is the acquiring of mineral rights either privately or through the government lease sales.

2. Exploration

   The investigation and determination of resource potential.

3. Development

   This phase involves:

   (i) The preparation of a development and reclamation report by the company.

   (ii) A review of the above report by the Board and the Department in full consultation with numerous other departments and disciplines.

   (iii) Public hearings taking into consideration both energy aspects as well as environmental matters.

   (iv) Final documentation of the agreement spelling out terms and conditions and inspection procedures.

   (v) Operation and reclamation.

   There is provision in all these phases for an environmental input.

In addition, regular meetings are held with the coal companies as development and reclamation progresses.

The role of the Department is partly regulatory and partly to ensure co-ordination. It is regulatory in respect to water quality, water use and diversions, and air pollution are concerned, and co-ordinative in respect to fish and wildlife, forestry, recreation, and agriculture as well as other environmental matters are concerned.

6. MULTIPLE USE APPLICATIONS

At the present time the Calgary Power Co. has made application to expand its generating capacity in the Sundance plant. This plant utilizes cooling waters from Lake Wabamun and subsequently discharges warmed effluent waters into the lake as well as some fly ash and anti-scaling and anti-corroding chemicals.

The Board's approach is a classic example of the Departments earlier contention that a holistic approach was required on environmental matters. The energy matter is but one part of a very complex and inter-related environment in the Lake Wabamun area. In addition, there are the recreation requirements of the summer cottagers, casual visitors to the lake and visitors to the provincial park. There is the extremely complex question of lake eutrophication, accelerated weed growth, sanitary effluents, industrial wastes and agricultural runoff from land clearing, fertilized fields and feedlots. The potential of inter-basin watershed diversion, subsurface discharge and recharge, lake level stabilization, excess evaporation and use over water basin runoff enter into the equation. Surface reclamation, surrounding conflicting land use, potential recreation development, highway routing and development, and gravel expropriation are included. To complicate matters are the questions of a developing Indian Reserve, a growing metroplis

of over 1,000,000 people in 30 years within one hours drive, proposed railroad re-alignment and several summer villages with municipal sewage and development problems, not to mention the effects of the warmed waters on winter ice, commerical fishing, safety, etc.

The Department submits that only an approach such as alternative "A" can provide an approximation of an holistic solution to complex developing situations with respect to the environment.

APPENDIX "C"

THE WATER RESOURCES ACT

SUMMARY*

APPLICATION AND APPROVAL PROCEDURES

1. Preliminary Permit: mandatory for ground water exploration, Minister's option for surface investigations.

   - Main function: To give lead time to assess water demand in light of other uses and other resources.

2. Application filed to use water and/or to construct works for the diversion of water.

3. Public advertising of filing of application.

   - Main function to provide for public inputs.

4. Evaluation of application and plans: changes in plan may be required; terms and conditions may be attached to right to divert and use water.

   - Main function: to protect source of supply, other users and environment.

5. Licence issued after construction to ensure works built according to authorized plans.

6. Water use returns to ensure compliance with terms of licence to provide data for;adjusting licences as required; refining initial allocation procedures; and basic information for general hydrologic studies.

7. Licences may be cancelled for reason to provide for changing demands.

Note: Above procedures apply to all beneficial uses of water and to all sources whether surface or ground water.

* See attachment for 1. more detail
2. network diagram

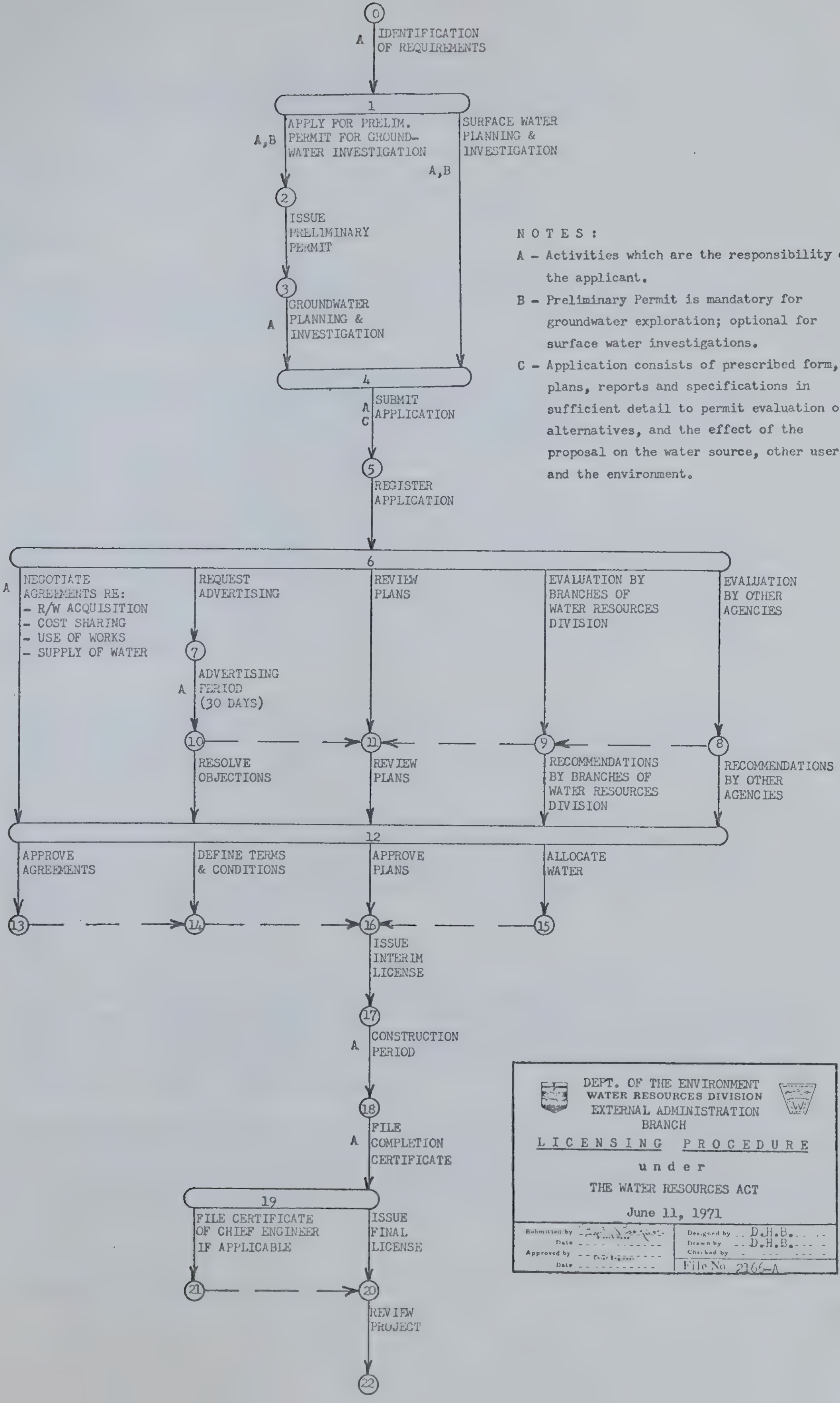
THE WATER RESOURCES ACT

APPLICATION AND APPROVAL PROCEDURES

EXISTING	PROPOSED
1. Application for preliminary (survey) permit - mandatory for ground water exploration (except farm domestic wells) - at the Minister's discretion for surface water investigation (usually required for water power developments)	
2. Application to use water and/or to construct works for the diversion of water. (The application, consisting of plans, reports and specifications, must be in sufficient detail to evaluate effect of proposal on the source of supply, other users and on other lands or works.)	
3. Publication of notice of filing of application - application advertised to give the public an opportunity to file objections - objections resolved in cooperation with agencies involved; additional information or changes in plan may be required of applicant.	Provision for public hearings in case objections cannot otherwise be resolved.
4. Plans are reviewed and recommendations made by other government agencies involved, for example: - Water Rights Branch determines if project in conflict with prior rights in the area. - Hydrology Branch in case of surface diversion reviews submitted hydrology report or, in many cases, makes its own assessment and recommendations. - Soils, Geology and Groundwater Branch evaluates ground water exploration report submitted as mandatory part of application to use ground water and makes recommendations re terms and conditions. - Fish and Wildlife Division evaluates effect on fish and/or wildlife and makes recommendations concerning minimum lake levels, etc..	

EXISTING	PROPOSED
- Land Division, Highways Department reviews if some form of public land involved.	
5. Agreements are negotiated by applicant (as needed) for example: - Acquisition of right of way. - Joint use of works, or diversion through the works of another licensee. - Supply of water to a third party. - Cost sharing under Alberta Water Control Program.	
6. Following evaluation by other government agencies and taking into consideration filed objections, modifications to plans may be required and terms and conditions imposed on the authorization to construct works.	
7. The authorization (interim licence) provides a time period for completion to ensure diligence in construction.	
8. After completion of works and when water is put to use a final certificate is filed by the applicant or by a consultant on his behalf. A final inspection survey is conducted by Division staff for all major projects; a report from P.F.R.A. is usually accepted on small agricultural developments.	
9. Licence (i.e. water right) is then issued provided applicant has complied with the provisions of the Act and terms of his interim licence including specifically: works constructed according to plan; right of way for works obtained; and agreements negotiated and filed pertaining to supply of water or use of works not the property of the applicant.	
10. In the past annual returns of water use have been obtained only from Irrigation Districts, all cities and a few miscellaneous other water users. Current industrial licences provide for filing of annual returns.	For proper administration of water resources there is an obvious need to obtain annual returns of water use from all major users.

EXISTING	PROPOSED
11. Licences may be cancelled for abandonment, misuse or use not deemed in public interest, or may be taken over by government.	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A
IDENTIFICATION OF REQUIREMENTS
1
A,B
APPLY FOR PRELIM. PERMIT FOR GROUND-WATER INVESTIGATION
SURFACE WATER PLANNING & INVESTIGATION
A,B
2
ISSUE PRELIMINARY PERMIT
3
A
GROUNDWATER PLANNING & INVESTIGATION
4
A
C
SUBMIT APPLICATION
5
REGISTER APPLICATION
6
A
NEGOTIATE AGREEMENTS RE:
- R/W ACQUISITION
- COST SHARING
- USE OF WORKS
- SUPPLY OF WATER
REQUEST ADVERTISING
REVIEW PLANS
EVALUATION BY BRANCHES OF WATER RESOURCES DIVISION
EVALUATION BY OTHER AGENCIES
7
A
ADVERTISING PERIOD (30 DAYS)
10
11
9
8
RESOLVE OBJECTIONS
REVIEW PLANS
RECOMMENDATIONS BY BRANCHES OF WATER RESOURCES DIVISION
RECOMMENDATIONS BY OTHER AGENCIES
12
APPROVE AGREEMENTS
DEFINE TERMS & CONDITIONS
APPROVE PLANS
ALLOCATE WATER
13
14
16
15
ISSUE INTERIM LICENSE
17
A
CONSTRUCTION PERIOD
18
A
FILE COMPLETION CERTIFICATE
19
FILE CERTIFICATE OF CHIEF ENGINEER IF APPLICABLE
ISSUE FINAL LICENSE
21
20
REVIEW PROJECT
22

NOTES:

A - Activities which are the responsibility of the applicant.

B - Preliminary Permit is mandatory for groundwater exploration; optional for surface water investigations.

C - Application consists of prescribed form, plans, reports and specifications in sufficient detail to permit evaluation of alternatives, and the effect of the proposal on the water source, other users and the environment.

DEPT. OF THE ENVIRONMENT
WATER RESOURCES DIVISION
EXTERNAL ADMINISTRATION
BRANCH

LICENSING PROCEDURE

under

THE WATER RESOURCES ACT

June 11, 1971

Submitted by Branch Head
Date
Approved by Chief Engineer
Date
Designed by D.H.B.
Drawn by D.H.B.
Checked by
File No 2166-A

SUMMARY STATEMENT*

AREAS OF DUPLICATED RESPONSIBILITY AND/OR CONFLICT

Insofar as use of water there are two main problem areas:

A. GROUND WATER

1. The Water Resources Act provides for obtaining a Licence to Use water for any or all beneficial purposes from any source of supply whether surface or ground water.

2. The Oil and Gas Conservation Act provides for issue of a Licence to Drill wells or test holes for any purpose where depth of hole is over 500 feet or in any case when the hole may penetrate a commercial gas or oil zone. It also regulates the injection of water into oil formations for pressure maintenance.

3. In the absence of procedures to issue licences to use ground water the Board in 1965 by arrangement with the Water Resources Division, the Research Council of Alberta and the then Oil and Gas Conservation Board began attaching supplementary conditions to its Licence to Drill where water was to be obtained for injection purposes. The supplementary conditions were aimed at obtaining basic information plus the protection of existing ground water users -- basic functions of The Water Resources Act.

4. By arrangement agreed upon by the three agencies the licencing of use of ground water for injection purposes was to be transferred to Water Resources Division by 1 April 1971 or as soon thereafter as convenient. (Events of the past summer and fall have tended to delay said transfer.)

5. In the meantime Water Resources Division is issuing preliminary permits for ground water exploration and is processing applications to use ground water from other types of industry and from municipalities under authority of the 1971 amendments and using existing procedures under The Water Resources Act.

B. WATER POWER (HYDRO ENERGY)

1. Water Power Regulations under The Water Resources Act provide for the development of works for the use of water and also have applied to the transmission and use of electrical energy. Discussions in the past have been aimed at confining Water Resources Division responsibility to the diversion and use of water per se.

2. The new Hydro and Electric Energy Act tends to encroach in the area of water supply and development of water storage and control works. A determination of the adaquacy of water supply and appropriate reservation of same must be a prerequisite to any studies of hydro energy development, distribution and use.

* See attachments for further details

SUPPORTING DETAIL

AREAS OF DUPLICATED RESPONSIBILITY AND/OR CONFLICT

WATER RESOURCES DIVISION AND ERCB

GROUND WATER

1. Although ground water was brought within the scope of The Water Resources Act in 1962, the 1971 Amendments were required to lend efficacy to the 1962 Amendments.

2. In the meantime in 1965 by arrangement with the Water Resources Division, Research Council of Alberta and the then Oil and Gas Conservation Board, the Board attached supplementary conditions to its Licence to Drill a well. Such supplementary conditions were designed to protect existing water users and to provide certain additional information with respect to ground water resources.

3. Following meetings in October 1970 with representatives of the Oil and Gas Conservation Board, the Research Council of Alberta and the Water Resources Division, recommendations concerning respective responsibilities were made and subsequently ratified on 3 November 1970 by Drs. Ballantyne, Wiggins and Govier. Although this delineation of responsibility covered several areas including basic research, collection of data, etc., the pertinent arrangements respecting use of water were:

   (a) The present licencing procedure will continue until 1 January 1971 except that a copy of the Licence to Drill issued by the Board will be forwarded to Water Resources.

   (b) A transition period, January 1 to April 1 (approximately) will enable procedures to be initiated and developed for issue of Licences to Use water under provisions of The Water Resources Act.

   (c) After April 1, 1971 (approximately) all Licences to Use water will be issued by the Water Resources Division; the Board to attach terms and conditions to the licence for any test holes or wells drilled in excess of 500 feet.

   A copy of a certificate respecting this delineation of responsibilities with a minor amendment recommended by Dr. Govier concerning the last two lines in 3(c) is attached for further information. His suggested modification is reasonable and proper since the Board must issue a Licence to Drill for all types of wells not solely those to obtain water.

4. Although the Board's Licence to Drill has, for several years, had attached supplementary conditions which provided for the use of ground water and which incidentally provide for safeguards for prior users of ground water, the basic legislation in this area is clear.

(a) The Water Resources Act is the Act which provides for licencing of use of water. Pertinent sections are 2(2), 5, 6, 14(10) and 99.

(b) Without going into all purposes of the Oil and Gas Conservation Act, it maybe noted by reference to the following section that licences or permits are required for drilling wells of any type, not for the use of water per se. See, for example, sections 2, 4, 5, 22 and 23.

5. To reinforce the above interpretation of The Water Resources Act and the Oil and Gas Conservation Act, reference can be made to the trial in the Supreme Court of Alberta between Paul Schneider and the Town of Olds. In his judgment the Honourable Chief Justice J.V.H. Milvain refused damages to Mr. Schneider but did point out "that in proceedings properly contemplated for such purpose, the Town could be prohibited from operating the well without a licence or perhaps the proper governmental authority by virtue of a writ of prerogative mandamas could be compelled to enforce the terms of the Act and of the regulations, and be compelled to prevent the Town from continuing to take water until licenced to do so." It follows that any municipality or industry diverting water without a licence under The Water Resources Act could similarly be prevented from diverting and using said water. Incidentally, the Town of Olds had a licence under the Oil and Gas Conservation Act to drill the wells in question.

ALBERTA DEPARTMENT OF AGRICULTURE

DEPUTY MINISTER

AGRICULTURE BUILDING
9718-107TH STREET
EDMONTON, ALBERTA

Postal Zone 6,
November 3, 1970.

Re: GROUNDWATER IN ALBERTA

This is to certify that the delineation of responsibilities and procedures as outlined in the minutes of the Groundwater Co-ordination and Liaison Meeting held October 1, 1970, attached as Schedule I, is acceptable to the Oil and Gas Conservation Board, the Research Council of Alberta and the Alberta Department of Agriculture, and shall be the operational document of the three agencies named above as of this date.

Nov 19/70
Date

G W Govier
Dr. G. W. Govier,
Alberta Oil and Gas Conservation Board

12 Nov 1970
Date

E J Wiggins
Dr. E. J. Wiggins,
Research Council of Alberta

3-11-70
Date

E. E. Ballantyne
Dr. E. E. Ballantyne,
Alberta Department of Agriculture

Please also see letter of OGCB
Nov 19/70 G W Govier

OIL AND GAS CONSERVATION BOARD
603 SIXTH AVENUE S.W. ◦ CALGARY 1, ALBERTA ◦ TELEPHONE 266-7261

G. W. GOVIER, P.ENG., CHAIRMAN
A. F. MANYLUK, P.ENG., DEPUTY CHAIRMAN
V. MILLARD, BOARD MEMBER

YOUR FILE

OUR FILE

November 19, 1970

40

Dr. E. J. Wiggins, Director
Research Council of Alberta
11315 - 87 Avenue
Edmonton 7, Alberta

Dear Dr. Wiggins:

Thank you for the copies of the statement containing the agreements between the Board, the Research Council and the Department of Agriculture regarding groundwater administration.

The items under Oil Industry are all satisfactory to the Board except that we would like to clarify the second sentence under part 3 to ensure that wells which may penetrate oil or gas are licenced by the Board. For this reason the Board suggests that Section 3 be amended in the last sentence as follows:

> The Oil and Gas Conservation Board shall issue licences for any test holes or wells which are likely to encounter oil or gas during drilling or which will be drilled to a depth in excess of 500 feet.

We do not believe that this requirement will result in any significant duplication of licensing since most water supply wells are less than 500 feet. We do wish to ensure that any well which may encounter oil or gas

will be under the Oil and Gas Conservation Regulations to ensure that no blow-outs or contamination occurs during the drilling of the well.

Yours truly,

G W Govier

G. W. Govier
Chairman

VEB/jw

cc: Dr. Ballantyne

3-11-70

Record of the conclusions reached at the Groundwater Co-ordination and Liaison Meeting held October 1, 1970 - Room 405 - Agriculture Building

Participants

Oil and Gas Conservation Board

Mr. V. Bohme

Research Council of Alberta

Dr. E.J. Wiggins
Dr. R. Green
Dr. J. Toth

Alberta Department of Agriculture

Dr. E. Ballantyne
R.E. Bailey
W. Solodzuk
L.D. Sadler
B.W. Boyson
H.A. Kerr

A. Oil Industry

1. The present licensing procedure will continue until January 1, 1971 except that a copy of the license issued by the Oil and Gas Conservation Board will be forwarded to Water Resources.

2. A transition period, January 1st to April 1st (approximately), will enable procedures to be initiated and developed. The licensing procedure will be basically the same as at present with some terms and conditions placed on the license by Water Resources through advice to the Oil and Gas Conservation Board.

3. All licenses and permits will be issued, as of April 1, 1971 (approximately) by Water Resources. The Oil and Gas Conservation Board shall attach terms and conditions to the license for any test holes or wells which are drilled in excess of 500 feet.

Note
suggest
amendm
by Dr. Gov
in letter
12 Nov 71

B. Actual and Potential Hydrogeological Activities in Alberta

General

It was agreed that the best way to facilitate research and development in groundwater was to insure good communications between the Research Council and Water Resources. It was suggested that a formal committee consisting of two representative from Water Resources and two from the Research Council be initiated. This proposal is to be detailed and submitted to the Groundwater Advisory Committee by L.D. M. Sadler. (It has since been suggested that a fifth member be appointed from the University of Alberta.)

I. Systematic Hydrogeological Mapping of Alberta

This is the direct responsibility of the Research Council of Alberta. Water Resources will assist in the gathering of information.

II. Groundwater Counselling

All requests for information on groundwater availability, water quality, depth to aquifers, etc., will be the responsibility of the Research Council.

It was mentioned that approximately 250 requests for such information will be forthcoming through the Domestic Water Program of Water Resources. Additional requests will be forwarded from Water Resources when licensing procedures are established.

III. Basic Research

A responsibility of the Research Council. The distinction between basic and applied research may have to be established. In any case agreement should be reached on specific programs, as to whether it is basic or applied research.

IV. Groundwater Allocation

This is a responsibility of Water Resources. The Research Council may act as a consultant, on request, from Water Resources.

V. Legislation and Law Enforcement

A Government responsibility

- Water Resources re: Allocation and use
- Oil and Gas Conservation Board re: Pollution Control

VI. Data storage and retrieval system

The central data file system will be established at the Research Council. An administrative and basic data computor system will be developed by Water Resources.

VII. Groundwater in Irrigated Areas

A Water Resources responsibility

VIII. Bedrock-channel Exploration and Water Testing

Exploration by Water Resources will be based on bedrock topography maps wherever possible. There will be consultation with the Research Council and an input to the hydrogeological maps as a result of the program.

IX. Public Relations

A responsibility of all agencies